

Title (en)  
POWER SUPPLY CIRCUIT

Title (de)  
STROMVERSORGUNGSSCHALTUNG

Title (fr)  
CIRCUIT D'ALIMENTATION ÉLECTRIQUE

Publication  
**EP 4117159 A4 20240410 (EN)**

Application  
**EP 20922887 A 20201216**

Priority  
• JP 2020047034 W 20201216  
• JP 2020039023 A 20200306

Abstract (en)  
[origin: EP4117159A1] A power supply circuit (1) includes: a transistor (TR1) having a drain connected to an input voltage, a gate, and a source; a diode (D1); a choke coil (3); a capacitor (C1); a transformer (5); a control circuit (4) configured to provide a drive signal for turning on and off the transistor (TR1) to a primary winding (5p) of the transformer (5) based on an output voltage (Vdc); an overvoltage detection circuit (9) configured to output an overvoltage signal (S1) when the output voltage (Vdc) is an overvoltage; and a short circuit (7) configured to short-circuit the gate and the source of the transistor (TR1) in response to the overvoltage signal (S1).

IPC 8 full level  
**H02M 3/155** (2006.01); **H02M 1/08** (2006.01); **H02M 1/32** (2007.01); **H03K 17/691** (2006.01)

CPC (source: EP US)  
**H02M 1/08** (2013.01 - EP); **H02M 1/092** (2013.01 - US); **H02M 1/32** (2013.01 - EP US); **H02M 3/156** (2013.01 - EP US); **H02H 9/041** (2013.01 - US); **H03K 17/691** (2013.01 - EP US); **H03K 2017/066** (2013.01 - EP)

Citation (search report)  
• [I] US 5786687 A 19980728 - FAULK RICHARD A [US]  
• [A] US 2017070142 A1 20170309 - SUNDARARAJ SUNDARESAN [US], et al  
• [I] US 5939927 A 19990817 - MYERS RICHARD C [US]  
• [I] EP 3476046 B1 20191218 - WUERTH ELEKTRONIK EISOS GMBH & CO KG [DE]  
• See also references of WO 2021176796A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 4117159 A1 20230111**; **EP 4117159 A4 20240410**; CN 115136479 A 20220930; JP 2021141756 A 20210916; JP 7380340 B2 20231115; US 12095355 B2 20240917; US 2023128678 A1 20230427; WO 2021176796 A1 20210910

DOCDB simple family (application)  
**EP 20922887 A 20201216**; CN 202080096599 A 20201216; JP 2020039023 A 20200306; JP 2020047034 W 20201216; US 202017801683 A 20201216